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LOGINID: SSSPTA1623PAZ

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TERMINAL (ENTER 1, 2, 3, OR ?):2

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FILE 'HOME' ENTERED AT 06:05:58 ON 21 OCT 2004

=> file reg
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 06:06:15 ON 21 OCT 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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STRUCTURE FILE UPDATES: 19 OCT 2004 HIGHEST RN 765878-56-6 DICTIONARY FILE UPDATES: 19 OCT 2004 HIGHEST RN 765878-56-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

=> logoff hold COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.42 0.63

FULL ESTIMATED COST

SESSION WILL BE HELD FOR 60 MINUTES STN INTERNATIONAL SESSION SUSPENDED AT 06:06:23 ON 21 OCT 2004

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID: SSSPTA1623PAZ

PASSWORD:

* * * * * RECONNECTED TO STN INTERNATIONAL * * * * * * SESSION RESUMED IN FILE 'REGISTRY' AT 06:10:04 ON 21 OCT 2004 FILE 'REGISTRY' ENTERED AT 06:10:04 ON 21 OCT 2004 COPYRIGHT (C) 2004 American Chemical Society (ACS)

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.42 0.63

FULL ESTIMATED COST

Uploading C:\Examination Auxillary files\10089036\10089036 clm 1.str





chain nodes:
1 2 3 4
chain bonds:
1-2 2-3 2-4
exact/norm bonds:
2-3 2-4
exact bonds:
1-2

G1:H,A

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



G1 H, A

Structure attributes must be viewed using STN Express query preparation.

=> search l1 sss sam
SAMPLE SEARCH INITIATED 06:11:37 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 2911 TO ITERATE

34.4% PROCESSED 1000 ITERATIONS

13 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 54985 TO 61455

PROJECTED ANSWERS: 387 TO 1125

L2 13 SEA SSS SAM L1

=> d scan

L2 13 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Boron, bis[(ethylamino)carbonyl]hydro(pyrrolidine)-, (T-4)- (9CI)

MF C10 H22 B N3 O2

CI CCS

$$\begin{array}{c|cccc}
C & \overline{H} & C \\
\hline
 & | & | & | \\
\hline
 & | & | & | \\
\hline
 & | & 3+ & C & N-Et
\end{array}$$

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):10

L2 13 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Boron, tetrahydrobis[(1-methylethoxy)carbonyl][μ -[N,N,N',N'-tetramethyl-1,2-ethanediamine-N:N']]di- (9CI)

MF C14 H34 B2 N2 O4

CI CCS

L2 13 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Borate(1-), (carboxylato)dihydro(1H-pyrrole)-, (T-4)- (9CI)

MF C5 H7 B N O2

CI CCS, COM

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L2 13 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Boron, (N,N-dimethylmethanamine) [(ethylamino)carbonyl] [(ethylimino)methoxy methyl]hydro-, (T-4)-, bis[tetrafluoroborate(1-)] (9CI)

MF C10 H24 B N3 O2 . 2 B F4 . 2 H

CM 1

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

● H·

L2 13 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Borate(2-), (carboxylato) (diethyl phosphito-P)dihydro-, sodium hydrogen, (T-4)- (9CI)

MF C5 H12 B O5 P . H . Na

CI CCS

● H+

Na+

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L2 13 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Borate(1-), dihydro(methoxycarbonyl)(2-phenyl-1,2-dicarbadodecaboran(12)-1-yl)-, lithium, (T-4)- (9CI)

MF C10 H20 B11 O2 . Li

● Li+

L2 13 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

MF C7 H15 B N O2 . H

CI CCS

● H+

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L2 13 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Boron, bis[(ethylamino)carbonyl]tetrahydro[μ -(N,N,N',N'-tetramethyl-1,2-ethanediamine-N:N')]di-(9CI)

MF C12 H32 B2 N4 O2

CI CCS

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L2 13 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Boron, dihydro(methoxycarbonyl)(N,N,N',N'-tetramethyl-1,2-ethanediamine-

 $\kappa N) - , (T-4) - (9CI)$

MF C8 H21 B N2 O2

CI CCS

L2 13 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Boranecarboxamide, N-[1-[[(4,6-dimethyl-2-pyridinyl)amino]carbonyl]-3-

(methylthio)propyl]-, (S)- (9CI)

MF C13 H20 B N3 O2 S

CI COM

Absolute stereochemistry.

L2 13 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Borate(1-), (carboxylato) (cyano-κC) hydro (methylpyridine) - (9CI)

MF C8 H8 B N2 O2

CI CCS, IDS, COM

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):3

L2 13 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Boron(1+), hydro(methoxycarbonyl)bis(pyridine)-, bromide, (T-4)- (9CI)

MF C12 H14 B N2 O2 . Br

CI CCS

• Br-

L2 13 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Boron, [diethyl [(dimethylamino)methyl]phosphonate-

N] (ethoxycarbonyl)dihydro-, (T-4)- (9CI)

MF C10 H25 B N O5 P

CI CCS

ALL ANSWERS HAVE BEEN SCANNED

=> e Boron, bis((ethylamino)carbonyl)hydro(pyrrolidine)-, (T-4)-/c EXPAND INCOMPLETE (SYSTEM ERROR)

COMMAND INTERRUPTED

The file that the system uses for index display in the EXPAND command is not available now. If this message appears repeatedly, please notify the Help Desk. Enter "HELP STN" for information on contacting the nearest STN Help Desk by telephone or via SEND in the STNMAIL file.

=> e Boron, bis((ethylamino)carbonyl)hydro(pyrrolidine)-, (T-4)-/cn

```
BORON, BIS ((ETHYLAMINO) CARBONYL) HYDRO (PYRIDINE) -, (T-4) -, BI
E1
                    S(TETRAFLUOROBORATE(1-))/CN
                    BORON, BIS ((ETHYLAMINO) CARBONYL) HYDRO (PYRIDINE) -, (T-4) -, MO
E2
                    NO (HEXAFLUOROPHOSPHATE (1-))/CN
             1 --> BORON, BIS((ETHYLAMINO)CARBONYL)HYDRO(PYRROLIDINE)-, (T-4)-/
E3
                    BORON, BIS ((ETHYLAMINO) CARBONYL) TETRAHYDRO (M-(N,N,N',N'-T
E4
             1
                    ETRAMETHYL-1,2-ETHANEDIAMINE-N:N'))DI-/CN
                    BORON, BIS ((ETHYLAMINO)CARBONYL)TETRAHYDRO(M-(TETRAETHYL
             1
E5
                    DIPHOSPHITE-KP:KP'))DI-/CN
                    BORON, BIS ((ETHYLAMINO) IMINOMETHYL) TETRAHYDRO (M-(N,N,N',N
             1
E6
                    '-TETRAMETHYL-1,2-ETHANEDIAMINE-N:N'))DI-/CN
                    BORON, BIS ((ETHYLAMINO)THIOXOMETHYL)TETRAHYDRO (M-(N,N,N',
E7
             1
                    N'-TETRAMETHYL-1,2-ETHANEDIAMINE-N:N'))DI-/CN
                    BORON, BIS ((ETHYLIMINO)METHOXYMETHYL)HYDRO(4-METHYLPYRIDINE)
             1
E8
                    -, (T-4)-/CN
                    BORON, BIS ((ETHYLIMINO) METHOXYMETHYL) HYDRO (4-METHYLPYRIDINE)
             1
E9
                    -, (T-4)-, BIS (TETRAFLUOROBORATE (1-))/CN
                    BORON, BIS ((ETHYLIMINO) METHOXYMETHYL) HYDRO (PYRIDINE) -, (T-4)
             1
E10
                    -/CN
                    BORON, BIS ((ETHYLIMINO) METHOXYMETHYL) HYDRO (PYRIDINE) -, (T-4)
             1
E11
                    -, BIS (TETRAFLUOROBORATE (1-))/CN
                    BORON, BIS (A, A-DIPHENYL-2-PYRROLIDINEMETHANOLATO
E12
             1
                    -N1,OA) DIMETHYL-M-OXODI-, (1S-(1A(1R*,2R*),2.
                    ALPHA.))-/CN
             1 "BORON, BIS((ETHYLAMINO)CARBONYL)HYDRO(PYRROLIDINE)-, (T-4)-"/CN
L3
=> d13
             1 DL3
L4
=> d 13
     ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN
L_3
     340154-04-3 REGISTRY
RN
     Boron, bis[(ethylamino)carbonyl]hydro(pyrrolidine)-, (T-4)- (9CI)
CN
     (CA INDEX NAME)
     C10 H22 B N3 O2
MF
     CCS
CI
SR
     CA
LC
     STN Files:
                  CA, CAPLUS, CASREACT
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation)
1
```

$$Et-N-C-B-C-N-Et$$

$$N$$

$$H$$

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE 1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus
COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
14.41
14.62

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FILE COVERS 1907 - 21 Oct 2004 VOL 141 ISS 17 FILE LAST UPDATED: 20 Oct 2004 (20041020/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> 13 1 L3 L_5

=> d 15 ti fbib abs

- ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
- Syntheses of the First Amine-dicarboxyboranes and Their Bis(methylester) TΤ and Bis(N-ethylamide) Derivatives
- AN2001:174667 CAPLUS
- 134:366926 DN
- Syntheses of the First Amine-dicarboxyboranes and Their Bis(methylester) TIand Bis(N-ethylamide) Derivatives
- Gyoeri, Bela; Berente, Zoltan ΑU
- Department of Inorganic and Analytical Chemistry, University of Debrecen, CS Debrecen, H-4010, Hung.
- Inorganic Chemistry (2001), 40(8), 1770-1778 SO CODEN: INOCAJ; ISSN: 0020-1669
- American Chemical Society PΒ
- DTJournal
- LA English
- CASREACT 134:366926 OS
- Amine-bis(N-ethylcarbamoyl)boranes [A·BH(CONHEt)2, 3; A = AB trimethylamine (Me3N, a), quinuclidine (Q, b), pyridine (py, f), 4-picoline (pic, g)] were prepared after deprotonation of [amine-bis(C-hydroxy-N-ethylimidate)hydroboron(2+)] cations (2), which were formed by the hydrolysis of [amine-bis(ethylnitrilium)hydroboron(2+)] tetrafluoroborates (1). Numerous representatives of 3 [A = diethylamine (Et2NH, c), piperidine (pip, d), pyrrolidine (pyrr, e), 4-aminopyridine (4-NH2-py, h), 4-(dimethylamino)pyridine (DMAP, i), imidazole (Him, j), 1-methylimidazole (Mim, k)] were prepared by base exchange reactions from 3A-e are extremely stable in aqueous media, either acidic or alkaline, probably because of the considerable steric hindrance of possible reaction centers. However, they were transformed into amine-dicarboxyboranes [A·BH(COOH)2, 4a-e] in acidic medium under vigorous conditions (100-130°). This transformation was accompanied by significant decomposition, probably owing to the protonation on the N atom, resulting in the rupture of the B-N bond. As an exception, 4b, where N atom in a rigid bicycle is not prone to attacks, could be isolated in very good yield. However, amine-bis(N-ethylcarbamoyl)boranes containing amines with sp2-hybridized N atoms (3f-k) undergo complete decomposition under similar conditions probably because of the increased hydridic character of the H

adjacent to B. Base exchange reactions starting from 4b resulted in the ammonium salts of 4c-e, h, i [A·BH(COOH)(COO-)][AH+], which in turn could be transformed into the diacids 4, except 4h, by protonation. As salt formation indicates, the 4 compds. are stronger acids as univalent acids than the corresponding A·BH2(COOH) complexes. 4A-e, i were readily esterified into amine-bis(methoxycarbonyl)boranes (5a-e, i) in MeOH, employing a catalytic amount of HBr. 5A-e, i are stable in alkaline medium but are readily hydrolyzed in acidic medium. Hydrolysis of [amine-bis(C-methoxy-N-ethylimidate)hydroboron(2+)] cations did not give the corresponding bisesters 5 in alkaline, neutral, or acidic medium.

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> file req		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	7.83	22.45
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-0.70	-0.70

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STRUCTURE FILE UPDATES: 19 OCT 2004 HIGHEST RN 765878-56-6 DICTIONARY FILE UPDATES: 19 OCT 2004 HIGHEST RN 765878-56-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

=> Uploading C:\Examination Auxillary files\10089036\10089036 carboxyborane.str



chain nodes:
1 2 3 4 6 7 8
chain bonds:
1-2 1-6 1-7 1-8 2-3 2-4
exact/norm bonds:
2-3 2-4
exact bonds:
1-2 1-6 1-7 1-8

G1:H,A

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 6:CLASS 7:CLASS 8:CLASS

L6 STRUCTURE UPLOADED

=> d 16

L6 HAS NO ANSWERS

L6 STR

G1 H,A

Structure attributes must be viewed using STN Express query preparation.

=> search 16 sss sam

SAMPLE SEARCH INITIATED 06:23:26 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 2911 TO ITERATE

34.4% PROCESSED 1000 ITERATIONS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS:

54985 TO 61455

PROJECTED ANSWERS:

O TO

0 ANSWERS

50 ANSWERS

L7 0 SEA SSS SAM L6

=> search 16 sss full

FULL SEARCH INITIATED 06:23:35 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 57303 TO ITERATE

TODE DEREBIT DEFENCE CONTENTED 57505 TO TIBE

100.0% PROCESSED 57303 ITERATIONS

SEARCH TIME: 00.00.01

50 SEA SSS FUL L6

=> d scan

L8

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Boron, [N,N-di(methyl-d3)methan-d3-aminium η -oxomethylide]trihydro-d3-(9CI)

MF C4 B D12 N O

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):10

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Borate(1-), trihydro[(methylamino)carbonyl]-, (T-4)-, hydrogen, compd.
with methanamine (1:1) (9CI)

MF C2 H7 B N O . C H5 N . H

CM 1

● H+

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

 ${\rm H_3C}-{\rm NH_2}$

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Silver, [(ethoxycarbonyl)trihydroborato(1-)-H]tris(triphenylphosphine)-, (T-4)-(9CI)

MF C57 H53 Ag B O2 P3

CI CCS

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Borate(1-), carbamoyltrihydro-, sodium (8CI)

MF C H5 B N O . Na

● Na+

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Borate(1-), [(dimethylamino)carbonyl]trihydro-, hydrogen, (T-4)- (9CI)

MF C3 H9 B N O . H

CI CCS, COM

$$\begin{array}{c|c} & & & H^{-} \\ & || & & || & 3+ \\ Me_2N - C - & & B - & H^{-} \\ & & | & & \\ & & H^{-} \end{array}$$

• H+

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Borate(2-), (carboxylato)trihydro-, dihydrogen, (T-4)- (9CI)

MF C H3 B O2 . 2 H

CI CCS

●2 H+

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Borate(1-), formyltrihydro-, (T-4)- (9CI)

MF C H4 B O

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Borate(1-), trihydro(methylcarbamoyl)-, potassium (8CI)

MF C2 H7 B N O . K

CI CCS

● K+

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Borate(2-), (carboxylato) trihydro-, monohydrogen, (T-4)- (9CI)

MF C H3 B O2 . H

CI CCS

● H+

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

MF C3 H6 B N O3 . 2 K

●2 K+

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Borate(1-), [(dimethylamino)carbonyl]trihydro-, (T-4)- (9CI)

MF C3 H9 B N O

CI CCS, COM

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):10

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN.

MF C39 H38 Ag B O2 P2

CI CCS

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Borate(2-), (carboxylato)trihydro-, calcium (8CI)

MF C H3 B O2 . Ca

CI CCS

● Ca²⁺

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Boron, (N,N-dimethylmethanaminium η-oxomethylide)trihydro- (9CI)

MF C4 H12 B N O

CI CCS

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Borate(1-), (aminocarbonyl)trihydro-, (T-4)- (9CI)

MF C H5 B N O

CI CCS, COM

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Argentate(1-), [(carboxylato)trihydroborato(2-)-H]tris(triphenylphosphine)-

, hydrogen, (T-4)- (9CI)

MF C55 H48 Ag B O2 P3 . H

CI CCS

● H+

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Borate(1-), trihydro[(methylamino)carbonyl]-, sodium, (T-4)- (9CI)

MF C2 H7 B N O . Na

Na +

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Borate(1-), [(dimethylamino)carbonyl]trihydro-, (T-4)-, hydrogen, compd.
with N-methylmethanamine (1:1) (9CI)

MF C3 H9 B N O . C2 H7 N . H

CM 1

$$\begin{array}{c|c} & & & & & & & & & \\ & & & & & & & & \\ Me_2N-C & & & & & & & \\ & & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ \end{array}$$

● H+

CM 2

H₃C--- NH--- CH₃

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Borate(2-), (carboxylato)trihydro-, lead(2+) (8CI) MF C H3 B O2 . Pb CI CCS

● Pb(II) 2+

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Borate(1-), [(acetyloxy)carbonyl]trihydro-, (T-4)- (9CI)

```
MF C3 H6 B O3
CI CCS
```

L8 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Borate(1-), (dimethylcarbamoyl)trihydro-, potassium (8CI)
MF C3 H9 B N O K
CI CCS

) K+

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

```
e Borate(2-), (carboxylato)trihydro-, monohydrogen, (T-4)-/cn
                   BORATE(2-), (CARBOXYLATO) TRIHYDRO-, DISODIUM, (T-4)-/CN
E1
                   BORATE(2-), (CARBOXYLATO) TRIHYDRO-, LEAD(2+)/CN
             1
E2
             1 --> BORATE(2-), (CARBOXYLATO)TRIHYDRO-, MONOHYDROGEN, (T-4)-/CN
E3
                   BORATE(2-), (CARBOXYLATO) TRIHYDRO-, POTASSIUM HYDROGEN, (T-4
E4
                   ) -/CN
                   BORATE(2-), (CARBOXYLATO) TRIHYDRO-, SILVER COMPLEX/CN
             1
E5
                   BORATE(2-), (CARBOXYLATO) TRIHYDRO-, SODIUM HYDROGEN, (T-4)-/
             1
E6
                   BORATE(2-), (CARBOXYLATO) TRIS (TRIFLUOROMETHYL)-, (T-4)-/CN
             1
E7
                   BORATE(2-), (CARBOXYLATO) TRIS(TRIFLUOROMETHYL)-, (T-4)-, DIH
E8
             1
                   YDROGEN, COMPD. WITH N, N-DIPROPYL-1-PROPANAMINE (1:1)/CN
                   BORATE(2-), (CARBOXYLATO) TRIS(TRIFLUOROMETHYL)-, DIHYDROGEN,
             1
E9
                     (T-4) - /CN
                   BORATE(2-), (CARBOXYLATO) TRIS(TRIFLUOROMETHYL)-, DIPOTASSIUM
E10
             1
                    (T-4)-/CN
                   BORATE(2-), (CARBOXYLATOMETHYL) TRIPHENYL-, (T-4)-/CN
             1
E11
                   BORATE(2-), (CARBOXYLATOMETHYL) TRIPHENYL-, (T-4)-, (OC-6-11)
E12
             1
                    -HEXAAMMINECOBALT (3+) HYDROGEN (3:1:3)/CN
=> e3
             1 "BORATE(2-), (CARBOXYLATO) TRIHYDRO-, MONOHYDROGEN, (T-4)-"/CN
L9
=> d 19
     ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN
L9
     333738-22-0 REGISTRY
RN
     Borate(2-), (carboxylato)trihydro-, monohydrogen, (T-4)- (9CI)
CN
     (CA INDEX NAME)
MF
     C H3 B O2 . H
     CCS
CI
SR
     CA
```

● H+

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus SINCE FILE TOTAL COST IN U.S. DOLLARS ENTRY SESSION 163.30 185.75 FULL ESTIMATED COST DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION -0.70 0.00 CA SUBSCRIBER PRICE

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FILE COVERS 1907 - 21 Oct 2004 VOL 141 ISS 17 FILE LAST UPDATED: 20 Oct 2004 (20041020/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> 19 L10 1 L9

=> d l10 ti fbib abs

L10 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
TI Carbon monoxide source for preparation of transition metal carbonyl complexes

```
AN
     2001:265426 CAPLUS
DN
     134:289554
     Carbon monoxide source for preparation of transition metal carbonyl
TI
     complexes
IN
     Alberto, Roger Ariel
     Mallinckrodt Inc., USA
PA
     PCT Int. Appl., 16 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
                                          APPLICATION NO.
                       KIND
                               DATE
                                                                 DATE
     PATENT NO.
                       ----
                                           ______
                               _____
                               20010412
                                          WO 2000-EP9856
                                                                  20001005
                        A1
PI
     WO 2001025243
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                           EP 1999-203254
     EP 1218385
                               20020703
                                           EP 2000-972700
                         A1
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL
                                           EP 1999-203254
                                                               A 19991005
                                           WO 2000-EP9856
                                                               W 20001005
     JP 2003511334
                         T2
                               20030325
                                           JP 2001-528187
                                                                  20001005
                                           EP 1999-203254
                                                                 19991005
                                           WO 2000-EP9856
                                                               W 20001005
     CASREACT 134:289554; MARPAT 134:289554
OS
AB
     monoxide source and optionally as a reducing agent in the preparation of
```

The present invention relates to compds. that have a novel use as a carbon monoxide source and optionally as a reducing agent in the preparation of transition metal carbonyl complexes. The compds. are (X1)(X2)(X3)BC(O)Y where X1, X2 and X3 are the same or different and either a Lewis base or hydride and Y is a sigma donating group. The preparation of these compds. is described as is the use of H3BCO as a reducing agent. Thus, K2H3BCO2 was prepared by bubbling H3BCO through and ethanolic KOH solution K2H3BCO2 can be reacted with [99mTcO4] - to generate [99mTc(OH2)(CO)3]+.

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
=> file req
COST IN U.S. DOLLARS
                                                   SINCE FILE
                                                                   TOTAL
                                                        ENTRY
                                                                 SESSION
FULL ESTIMATED COST
                                                         3.87
                                                                  189.62
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)
                                                   SINCE FILE
                                                                   TOTAL
                                                        ENTRY
                                                                 SESSION
CA SUBSCRIBER PRICE
                                                        -0.70
                                                                   -1.40
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STRUCTURE FILE UPDATES: 19 OCT 2004 HIGHEST RN 765878-56-6 DICTIONARY FILE UPDATES: 19 OCT 2004 HIGHEST RN 765878-56-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

```
=> e Borate(1-), ((acetyloxy)carbonyl)trihydro-, (T-4)-/cn
                   BORATE(1-), ((6-METHYL-1,3-CYCLOHEXANEDIYL)(1-METHYL-1,2-ETH
E1
                   ANEDIYL))DIHYDRO-, LITHIUM, (T-4)-/CN
                   BORATE(1-), ((6-METHYL-1,3-CYCLOHEXANEDIYL)(1-METHYL-1,2-ETH
E2
                   ANEDIYL))HYDRO(1,1,2-TRIMETHYLPROPYL)-, LITHIUM, (T-4)-/CN
             1 --> BORATE(1-), ((ACETYLOXY)CARBONYL)TRIHYDRO-, (T-4)-/CN
E3
                   BORATE(1-), ((BORYLENEAMINO)METHYLENE)(CYANO-N)HYDRO-, HYDRO
F:4
                   GEN, (E,?)-/CN
             1
                   BORATE(1-), ((BORYLENEAMINO)METHYLENE)(CYANO-N)HYDRO-, HYDRO
E5
                   GEN, (Z,?)-/CN
                   BORATE(1-), ((CYANO-13C)-C)TRIPHENYL-, NICKEL COMPLEX/CN
E6
             1
                   BORATE(1-), ((D-ERYTHRO-HEX-2-ENONIC ACID-KO5, KO
             1
E7
                   6) \Gamma-LACTONATO(2-))DIHYDROXY-, (T-4)-/CN
                   BORATE(1-), ((DICYCLOHEXYLPHOSPHINO-KP)ACETATO)TRIHYDR
             1
E8
                   O-, HYDROGEN, (T-4)-/CN
                   BORATE(1-), ((DIETHOXYPHOSPHINYL)DIFLUOROMETHYL)TRIMETHOXY-,
             1
E9
                    (T-4)-/CN
                   BORATE(1-), ((DIETHOXYPHOSPHINYL)DIFLUOROMETHYL)TRIMETHOXY-,
             1
E10
                    LITHIUM, (T-4)-/CN
             4
                   BORATE(1-), ((DIETHYL 3,3'-(1,2-ETHANEDIYLDINITRILO)BIS(2-(H
E11
                   YDROXYIMINO) BUTANOATO))(2-)-O2,O2')DIFLUORO-, NICKEL COMPLEX
                   /CN
                   BORATE(1-), ((DIETHYL 3,3'-(1,3-PROPANEDIYLDINITRILO)BIS(2-(
             4
E12
                   HYDROXYIMINO) BUTANOATO)) (2-)-02,02') DIFLUORO-, NICKEL COMPLE
                   X/CN
=> e3
             1 "BORATE(1-), ((ACETYLOXY)CARBONYL)TRIHYDRO-, (T-4)-"/CN
Ь11
=> d l11
L11 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN
RN
     89869-70-5 REGISTRY
CN
     Borate(1-), [(acetyloxy)carbonyl]trihydro-, (T-4)- (9CI)
                                                                (CA
     INDEX NAME)
OTHER CA INDEX NAMES:
    Acetic acid, anhydride with formic acid, boron complex
CN
MF
     C3 H6 B O3
CT
     CCS
LC
     STN Files:
                  CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); PRP (Properties)
```

- 1 REFERENCES IN FILE CA (1907 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 6.62 196.24

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION

CA SUBSCRIBER PRICE 0.00 -1.40

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FILE COVERS 1907 - 21 Oct 2004 VOL 141 ISS 17 FILE LAST UPDATED: 20 Oct 2004 (20041020/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> 111

L12 1 L11

=> d l12 ti fbib abs

- L12 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Predictive schemes for the reactivity of borane carbonyl and the stability of carbonyltrihydroborate anions, BH3C(0)X-
- AN 1984:174885 CAPLUS
- DN 100:174885
- TI Predictive schemes for the reactivity of borane carbonyl and the stability of carbonyltrihydroborate anions, BH3C(0)X-
- AU Spielvogel, Bernard F.; McPhail, Andrew T.; Knight, Jimmy A.; Moreland, Charles G.; Gatchell, Catherine L.; Morse, Karen W.
- CS Paul M. Gross Chem. Lab., Duke Univ., Durham, NC, 27706, USA
- SO Polyhedron (1983), 2(12), 1345-52 CODEN: PLYHDE; ISSN: 0277-5387
- DT Journal
- LA English
- OS CASREACT 100:174885
- The reactivity of borane carbonyl (BH3CO) and its isoelectronic counterpart the acetylium cation (CH3CO+) are compared resulting in the formulation of (carbonyl)trihydroborate anions, BH3C(O)X-, which are isoelectronic and isostructural with organic carbonyls. By analogy with the ease of reduction of organic carbonyl compds. by hydroborate, the relative stability towards self-reduction-oxidation (hydride transfer from B to carbonyl C) in BH3C(O)X- is proposed. The postulated order, with increasing stability is: BH3C(O)Cl- < BH3C(O)H- < BH3C(O)R- < BH3C(O)OR- < BH3C(O)OR-

aminecarboxyboranes (B analogs of α -amino acids) and their derivs.

=> 18

L13 34 L8

=> save temp 113 boroncmpds/a ANSWER SET L13 HAS BEEN SAVED AS 'BORONCMPDS/A'

=> logoff hold

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION 8.27 204.51 FULL ESTIMATED COST DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL SESSION ENTRY -2.10 CA SUBSCRIBER PRICE -0.70

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 06:36:29 ON 21 OCT 2004

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:

* * * * * RECONNECTED TO STN INTERNATIONAL * * * * * * * SESSION RESUMED IN FILE 'CAPLUS' AT 06:37:47 ON 21 OCT 2004 FILE 'CAPLUS' ENTERED AT 06:37:47 ON 21 OCT 2004 COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	8.27	204.51
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.70	-2.10
=> file reg COST IN U.S. DOLLARS	SINCE FILE	TOTAL SESSION
FULL ESTIMATED COST	8.27	204.51
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.70	-2.10

FILE 'REGISTRY' ENTERED AT 06:38:02 ON 21 OCT 2004
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STRUCTURE FILE UPDATES: 19 OCT 2004 HIGHEST RN 765878-56-6 DICTIONARY FILE UPDATES: 19 OCT 2004 HIGHEST RN 765878-56-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

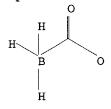
Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

=>

Uploading C:\Examination Auxillary files\10089036\10089036 carboxyborane specific.str



8 | 6 | 2 3 | 7

chain nodes :

1 2 3 4 6 7 8

chain bonds :

1-2 1-6 1-7 1-8 2-3 2-4

exact/norm bonds :

2-3 2-4

exact bonds :

1-2 1-6 1-7 1-8

G1:H,A

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 6:CLASS 7:CLASS 8:CLASS

L14 STRUCTURE UPLOADED

=> d 14

L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN

RN 526832-07-5 REGISTRY

CN DNA (Diplosoma listerianum clone DL3.9 microsatellite 3/9B-containing fragment) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN GenBank AF508214

FS NUCLEIC ACID SEQUENCE

MF Unspecified

CI MAN

SR GenBank

LC STN Files: CA, CAPLUS, GENBANK

DT.CA CAplus document type: Journal

RL.NP Roles from non-patents: BIOL (Biological study); PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> search l14 exact full FULL SEARCH INITIATED 06:39:05 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 10 TO ITERATE

100.0% PROCESSED 10 ITERATIONS SEARCH TIME: 00.00.01

1 ANSWERS

L15 1 :

1 SEA EXA FUL L14

=> d scan

L15 1 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Borate(2-), (carboxylato)trihydro-, (T-4)- (9CI) MF C H3 B O2 CI CCS, COM

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

ALL ANSWERS HAVE BEEN SCANNED

=> file caplus COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 54.86 259.37 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE 0.00 -2.10

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FILE COVERS 1907 - 21 Oct 2004 VOL 141 ISS 17 FILE LAST UPDATED: 20 Oct 2004 (20041020/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> 115 L16 3 L15

=> d l16 1-3 ti fbib abs

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ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
ΤI
     Carbon monoxide source for preparation of transition metal carbonyl
     complexes
AN
     2001:265426 CAPLUS
DN
     134:289554
     Carbon monoxide source for preparation of transition metal carbonyl
TΤ
     complexes
IN
     Alberto, Roger Ariel
     Mallinckrodt Inc., USA
PΑ
SO
     PCT Int. Appl., 16 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
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                                            APPLICATION NO.
     PATENT NO.
                                 DATE
                          ----
                                 -----
                                              _____
                                           WO 2000-EP9856
                                 20010412
                                                                      20001005
_{
m PI}
     WO 2001025243
                          A1
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             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                             EP 1999-203254
                                                                   A 19991005
                                              EP 2000-972700
                                 20020703
     EP 1218385
                                                                      20001005
                           A1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL
                                              EP 1999-203254
                                                                   A 19991005
                                                                   W 20001005
                                              WO 2000-EP9856
                                              JP 2001-528187
     JP 2003511334
                           T2
                                 20030325
                                                                      20001005
                                              EP 1999-203254
                                                                   Α
                                                                     19991005
                                              WO 2000-EP9856
                                                                   W 20001005
     CASREACT 134:289554; MARPAT 134:289554
OS
AB
     The present invention relates to compds. that have a novel use as a carbon
     monoxide source and optionally as a reducing agent in the preparation of
     transition metal carbonyl complexes. The compds. are (X1)(X2)(X3)BC(O)Y
     where X1, X2 and X3 are the same or different and either a Lewis base or
     hydride and Y is a sigma donating group. The preparation of these compds. is
     described as is the use of H3BCO as a reducing agent. Thus, K2H3BCO2 was
     prepared by bubbling H3BCO through and ethanolic KOH solution K2H3BCO2 can be
     reacted with [99mTcO4] - to generate [99mTc(OH2)(CO)3]+.
              THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 1
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
L16
     Synthesis and Properties of Boranocarbonate: A Convenient in Situ CO
ΤI
     Source for the Aqueous Preparation of [99mTc(OH2)3(CO)3]+
     2001:172533 CAPLUS
AN
DN
     134:375302
ΤI
     Synthesis and Properties of Boranocarbonate: A Convenient in Situ CO
     Source for the Aqueous Preparation of [99mTc(OH2)3(CO)3]+
ΑU
     Alberto, Roger; Ortner, Kirstin; Wheatley, Nigel; Schibli, Roger;
     Schubiger, August P.
CS
     Institute of Inorganic Chemistry, University of Zuerich, Zurich, CH-8057,
     Switz.
     Journal of the American Chemical Society (2001), 123(13), 3135-3136
SO
     CODEN: JACSAT; ISSN: 0002-7863
     American Chemical Society
PB
DT
     Journal
     English
LA
```

OS

CASREACT 134:375302

AB Using a boron-based carbonylating agent, [H3BCO2] - which acts as an in situ CO source and a reducing agent at the same time, an organometallic transition-metal complex [99mTc(OH2)3(CO)3] + was feasibly prepared for the first time. K[H3BCO2] (2) was prepared from H3BCO and KOH in alc. Crystals of [K(cryptand)]H3BCO2H were obtained after dissoln. of 2 in a THF solution of 4,7,13,16,21,24-hexaoxa-1,10-diazabicyclo[8.8.8.]hexacosane. Aqueous solns. of 2 are strongly alkaline and quite stable toward heating, but the addition of a borate buffer allows the decomposition with half-lives in the order

of tens of minutes. Kinetic measurements in buffered solns. show a second-order dependence of the rate of boranocarboxylate decomposition on proton decomposition. Borane carbonyl is formed when boranocarbonate salts are treated with strong acids.

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

TI An investigation of the coordinating properties of the boranocarbonates and tetrahydroborate

AN 1978:130114 CAPLUS

DN 88:130114

TI An investigation of the coordinating properties of the boranocarbonates and tetrahydroborate

AU Bommer, Jerry Charles

CS Utah State Univ., Logan, UT, USA

SO (1977) 250 pp. Avail.: Univ. Microfilms Int., Order No. 7730634 From: Diss. Abstr. Int. B 1978, 38(8), 3687

DT Dissertation

LA English

AB Unavailable

=> logoff hold COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 7.48 266.85 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE -1.40 -3.50

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 06:41:09 ON 21 OCT 2004